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ABSTRACT

Topics and ideas for implementing global perspectives on interrelatedness into the elementary social studies curriculum are intended for selective use by teachers. Objectives are to help students become aware of global interdependence and the implications and problems which accompany global interdependence. Section I presents ideas for curriculum development on global interrelatedness for grades K-3. Presentation of specific objectives and a background discussion are followed by a topic and idea outline of concepts including family life, people and communities, cities and city life, and people and the environment. For each topic, questions and explanations are listed, teaching techniques are suggested, and conclusions are offered. Section II presents suggestions for curriculum development on the topic of interdependence for grades 4-6. Specific objectives and a background discussion are followed by a topic and idea outline, as in section I. The six topics are: technology, economy, comparing cultures or world regions, American history, modern society, and environmental studies. Activities, key questions, and concepts for each topic are presented. Teacher and reviewer comments are solicited. (Author/DB)

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Global Perspectives:
A Humanistic Influence
on the Curriculum

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SP009 791

INTERDEPENDENCE

Number One in a Series of K-12 Guides

Part A, K-3 **Part B, 4-6**

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CENTER FOR GLOBAL PERSPECTIVES

DAVID C. KING

A SPECIAL NOTE: The concept guides and patterns for teaching should be viewed as a stage in a process, rather than volumes with any pretense of finality. Your comments and suggestions for building and reshaping the conceptual framework and sample lessons are welcomed and needed. It is anticipated that the framework will be adapted by each user, as it functions to complement and supplement a wide variety of disciplines and courses. Further, we welcome the comments of students, parents, and administrators, as well as teachers and curriculum specialists.

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GLOBAL PERSPECTIVES:

A HUMANISTIC INFLUENCE ON THE CURRICULUM

SUGGESTIONS FOR CURRICULUM DEVELOPMENT ON INTERDEPENDENCE

PART A, K-3 PART B, 4-6

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GLOBAL PERSPECTIVES:

A HUMANISTIC INFLUENCE ON THE CURRICULUM

INTRODUCTION TO THE SERIES

> The most reliable starting point in learning is usually with the whole, leaving parts to be examined in the perspective of the whole. . . . We learn to find our way about a town by looking at a map of the whole and finding where we are in relation to the whole. We find our way in and out of complex buildings by having an image or map of the whole, and our present position in relation to it -- or follow notices provided by someone who has such an image. A knowledge of world society as a whole helps us to understand parts of it, and to see the relationships between the parts. Without this knowledge we are likely to misinterpret behavior, to attribute wrong motivations, to mistake individual differences for racial or cultural differences and generally to be inadequate within our own social relationships.
>
> *John W. Burton, World Society, Cambridge University Press, 1972, p. 6*

* * * *

The basic idea of this series, GLOBAL PERSPECTIVES: A HUMANISTIC INFLUENCE ON THE CURRICULUM, is to suggest some important ways in which teachers and curriculum developers can weave a broader and more realistic world view into the existing social studies curriculum, K-12. The goal is neither to remodel present courses nor to create new ones. Much of the educational raw material needed for an adequate understanding of our world already exists, at least in the more up-to-date texts and supplementary units. What is lacking are tools students can use to organize more effectively the mass of information. As matters now stand, the students encounter the material, grade after grade after grade, but they fail to emerge with the world-mindedness so vital to people who will be spending their adult lives in the 21st century.

THE IMPORTANCE OF CONCEPTS/THE IDEA OF UNIVERSAL CONCEPTS

One basic set of tools students need are concepts that will give them a chance to organize and process the increasing mountains of information which confront them. This includes the bombardment of data and stimuli from all sources -- not just the classroom. For a long time educators have been convinced that learning can best be organized around various centralizing themes or concepts.

To achieve this end, lists of concepts were gleaned from each of the social sciences. And the lists have grown; the teacher's edition of practically every text at every grade level is loaded with concepts. Many of these organizing labels are appropriate for exploring limited subject matter and gaining some small insight. For instance, once a student has grasped the concept of *irrigation*, it is easily applied -- at least to certain phenomena. The concept may not need to be taught in later grades.

But notice this: a few of the words in those growing lists are of a different order. *Interdependence* and *conflict*, for example, are included in most collections of concepts. Those two words suggest something larger, more vital than *sea transportation, buying and selling* or *political parties*. They are larger organizing themes; they represent forces that pervade our lives. Understanding of conflict and interdependence is important to understanding ourselves and the world around us.

To separate these larger themes from the extensive listings, we can call them *universal concepts*. They cut across disciplinary lines -- each of the social sciences can shed some light on them. In fact, they go beyond the social sciences -- other areas of exploration, such as literature, art, science -- can offer valuable perspectives. These universal concepts also cut across longitudinal lines; that is, they should be dealt with at each grade level as a vital part of the learning process.

This idea of universal concepts can provide us with the kind of organizing themes we need. These over-arching concepts should be thought of as ways of looking at the world, lenses for seeing things from a certain perspective. They become analytical tools for pulling together seemingly diverse phenomena; students can apply them to their own lives and surroundings as well as to a variety of course materials.

Clearly if universal concepts are to have any value, there needs to be a sequence of development. As the child matures, he or she should be learning to apply a number of these lenses in an

increasingly sophisticated manner. And even in the very early grades, the child should be able to explore how these concepts operate on the global level as well as in his or her personal life and surroundings. This does not mean that every class period should be devoted to concentration on one universal concept or another. Rather, the idea is that working with subject matter in a certain way at various times during the year will lead students to incorporate these perspectives into their thinking.

USING THE GUIDES

The major portion of each guide consists of topics, ideas, and questions which the teacher can insert into the curriculum at appropriate places. The guide may look complicated, but the outline of suggestions for specific grade levels is actually quite manageable. We have tried to gear the K-9 outlines to existing texts, so there is rarely a need to develop new lessons or to buy new materials. The teacher will find, by simply reading through the guide, that there are numerous places to use the concept for two key purposes:

a. To help the student better understand the subject matter,

b. To provide ways of seeing the relationship between the course material and one's own life -- relating self and subject matter to encompass a world view.

For those developing new curriculum materials, the guides offer suggestions on how to tailor subject matter so that it will better meet the needs of young people growing up in this closed system we have come to refer to as Spaceship Earth. We hope, too, that commercial publishers will find some ideas and viewpoints worth considering in the development of future series.

The guide has a valuable supplement, which offers some sample lessons at various grade levels. It also gives some ideas on how teachers can create their own lessons, relying primarily on the daily newspaper and local events.

Interdependence means simply *mutual dependence* -- parts of a whole depending on each other. The significant thing about this simple definition is that it describes one of the basic and important features of the world we live in. When we talk about such things as the Shrinking Planet, or Spaceship Earth, or the Global Village, we are acknowledging the fact that the human species is being more tightly bound together with each passing day. We find ourselves living in huge global webs, although awareness often comes only when some sudden jolt in one of the strands -- like the Energy Crisis -- reverberates through all the others.

The forces at work creating this village environment are not hard to find -- the continuing innovations in technology, mass communications, and high-speed transportation working on such tendencies as the urge of business to expand, the scattering and overuse of scarce resources, the desire of the have-nots to have something, the uncontrolled growth of population, and the age-old belief in fighting for what one wants. Taken together, all these elements magnify our Spaceship proximity, making us inescapable partners with our fellow passengers.

Actually, there are probably few of us who want to be neighbors with four billion other humans. Tribalism developed long before tele-communications, and we have always been suspicious of anyone from outside the village limits. But now suddenly the borders between villages have become blurred.

Being tied so closely to others does not necessarily mean that a sense of world community is the inevitable outcome. But this is the mistake our texts so often make. We teach children how communities depend on each other, how different regions of the nations are interdependent, and occasionally, that these interdependent strands (at least economic ones) stretch to the coconut groves of the South Pacific, the oil fields of the Middle East, or the manufacturing centers of Japan. The student, if he or she is encouraged to think in global terms, sees an extension of local voluntary interdependence -- like the friendly farmer producing food for the city workers.

Unfortunately, global interdependence is considerably more complex than mutual dependence within a nation or region. Intervening variables such as nationalism, racism, ethnocentrism, and the lack of accepted rules make the equations untidy. In fact, contact may create just the opposite of increased understanding, despite acknowledged common ties. Indeed, the most violent of wars have always been those which involved people who had common ties.

A major goal of education, therefore, must be to help students understand the ambiguities of global interdependence. There are parallels in the way interdependence operates at all levels from the nuclear family to the world family. Interdependence, at each of these levels, contains the potential for integration but also for conflict. The enormous task we face, then, is to help young people understand exactly what interdependence is and what factors can best be fostered to maximize its potential for good.

MAJOR OBJECTIVES IN TEACHING ABOUT INTERDEPENDENCE, K-12

1. To increase students' awareness of the forces creating global interdependence.

   a. The continuing revolutions in industrialization, transportation, communication.

   b. The problems which bind us, such as population pressures, gaps between rich and poor, the uneven distribution of goods and scarce resources, the need to control violence.

2. To increase students' understanding of the ways in which global interdependence influences the lives of individuals, families, communities, and nations.

3. To increase students' acceptance of the idea that interdependence can create new problems as well as the potential for a better life.

4. To help students explore some of the factors which make it difficult to live within our "webs of interdependence";

   examples: Tribalism (including nationalism)

   egocentrism and ethnocentrism

   increased competition for scarce resources.

5. To help students develop the tools needed to analyze the various systems and subsystems which make up the global webs -- economic systems, political systems, ecosystems, etc.

MAJOR RESEARCH SOURCES

The concepts and ways of dealing with them have been derived from a variety of sources. A major theoretical guide has been a study prepared for the United States Office of Education by the Foreign Policy Association under the direction of Lee F. Anderson and James M. Becker. Published in 1969, this report (titled *An Examination of Objectives, Needs, and Priorities in International Education*) has already influenced a number of commercially developed texts and teaching materials. Similarly, we have made use of such sources as: the Hilda Taba Curriculum Development Project, the Social Studies Development Center at the University of Indiana, the Social Studies Curriculum Center at Syracuse University, the work of Jerome Bruner and his associates, and the curriculum development program of the Center for War/Peace Studies. These programs have also contributed to positive changes in recently published material. Some curriculum materials are now available to deal with such concepts as interdependence, conflict and change, population pressures, and so on. What is still lacking is a sequential framework for learning about and analyzing these concepts. These guides are a beginning attempt to provide such a framework by enlarging on those themes as they are currently presented.

SUGGESTIONS FOR CURRICULUM DEVELOPMENT

INTERDEPENDENCE

PRIMARY GRADES (K-3)

OBJECTIVES

Students should

1. develop a beginning understanding of what we mean by mutual dependence -- people or parts of things depending on each other.

2. by grade 3, know and use the term *interdependence*.

3. become aware of how interdependence influences their own lives, their families, their communities.

4. view interdependence as basic to all human life, and see how the concept operates in the natural environment and the life of animals.

5. be introduced to ways in which our mutual dependence extends to other parts of the globe.

BACKGROUND DISCUSSION

In the primary grades, children can gain an understanding of how interdependence operates in a variety of settings. They can also deal with the concept in global terms. We have generally assumed that a child's sense of awareness gradually expands from his immediate surroundings outward in increasingly large concentric circles until he attains some conception of nation and world. Consequently, primary texts generally deal with interdependence within the family, the neighborhood, the community.

However, in the age of television, researchers have now made it clear that children very early attain a sense of a larger world. There is no reason to believe that we can't enlarge on those haphazard areas of awareness and curiosity. The social studies

curriculum offers some key entry points for such development: first, when dealing with the interaction between rural and urban (or suburban) environments; second, in lessons dealing with beginning economic concepts like buying and selling; third, in units dealing with other cultures.

The following ideas and topics can be explored in most cases through your basic text materials. You will also find that familiarity with the concept can be expanded through some routine classroom activities as well as in other subject areas such as reading and science. This does not mean that you have to deal with the topic at every possible occasion -- rather, over the course of the year, you should consciously look for ways to help the children make this concept a helpful tool for their learning and daily living.

TOPIC AND IDEA OUTLINE

INTRODUCTORY -- Beginning to understand interdependence

(You can insert this opening study at any suitable point.)

1. Interdependence exists when people and/or things depend on each other.

   Explain, and then help students find examples of what it means to depend on others.

   In a science lesson, for example, you might talk about how the parts of a tree depend on each other, and how they depend on other parts of the environment.

   a. How do parts of a building depend on each other?

   b. Do family members depend on each other?

   c. How do parts of a toy depend on each other?

   d. Can you name some things you depend on?

2. Parts do not have to be equal to be interdependent.

   After children have talked about people or parts depending on each other, they sometimes confuse interdependence with

equality. That is, they begin to think of the parts as somehow being equal.

The following simple story can dispel that confusion and also give them a better understanding of the concept:

> What does it mean for two things to depend on each other? It is not a matter of the two things being equal. For instance, there's a little bird that rides around on the back of the rhinoceros. The bird picks bugs off the back of the rhino.
>
> You would not say that the tiny bird and the huge rhinoceros are equal. But they do depend on each other. The rhino is rid of the nuisance bugs. And the bird owes the rhino for his dinner, plus perhaps a tip for the protection he gets while eating.

3. Some conclusions

When you feel the children are ready, you can introduce the terms *interdependence* and/or *mutual dependence*.

By breaking the words into their different parts, they should be able to make the mental transfer from "depending on each other" to interdependence or mutual dependence.

FAMILY LIFE

1. Members of the children's families depend on each other.

   a. How do the children's families help each other?

      Make a list of how they depend on their parents and their parents on them. Or have them keep daily journals for a week listing examples of mutual dependence.

   b. Do their families have rules? What kind and why do we need them?

2. Families in other parts of the world depend on each other.

Unless your text goes into some detail, it would be most helpful to read stories to the class about family life in

different kinds of societies, or have the children read the stories when possible. The class can then list similarities and differences. The comparisons will help them understand their own families and the nature of families.

a. How do children fit in in other kinds of families?

- Who takes care of the small children?

- What tasks do children perform? How do these compare with the pupils' tasks?

b. What needs do families fulfill?

(e.g. raising children, providing shelter, food, love, etc.)

c. Do all kinds of families have rules? What would happen if there were no rules?

d. How do grandparents and great-grandparents fit into different kinds of families?

3. Animal families depend on each other, too.

Consider animal families and the way the members of such families depend on each other. What are some similarities and differences between animal and human families?

4. Some conclusions

a. Members of families depend on each other.

b. Rules help family members keep track of jobs each person is responsible for.

c. All humans form families; families in other countries are like American families in some ways, different in others.

d. Animal families have some similarities with human families.

PEOPLE AND COMMUNITIES (or neighborhoods)

1. Different parts of the community depend on each other.

   a. What parts of the community do children and their families depend on?

      (e.g. school, fire department, grocery store, etc.)

   b. How do these parts of the community depend on children and their families?

      Family occupations can be used here too. (Schools need pupils; they also need adults to pay taxes. How do you suppose the tax money is used?)

2. Communities depend on each other.

   a. How do different types of communities, such as cities, suburbs and rural areas, depend on each other?

   b. How does your community depend on others far away -- people your pupils will never meet and places they will never visit?

      Divide the class into teams, each to pick food items or manufactured goods to find out where they originated. Use map skill development to locate distances from local community. You can also invite speculation on why everything isn't made or grown in one place.

   c. How are communities linked? How do products get to your community or family?

      Again, build map skills; these can be combined with studies of transportation. For example, ask the class if they can think of any product or thing they have that did not travel in a truck. They will see that:

      (1) Trucks carry things from different parts of the community.

      (2) Trucks also carry things brought from ships, trains or airplanes.

      Conclude by asking, are we dependent on trucks? Do trucking companies depend on us? (as purchasers of goods)

3. Communities vary in different parts of the world.

   a. How do people in primitive tribes depend on each other?

   b. Do primitive groups (or early humans) depend much on other parts of the world? Why don't they?

      (No modern transportation. They make practically all the things they need.)

4. Some conclusions

   a. The family is tied to other parts of the community.

   b. The community depends on other places -- sometimes for things made in other parts of the world.

   c. People in other communities, or parts of your community, depend on people like your pupils and their families.

   d. Primitive groups (or early humans) did not depend on other parts of the world.

CITIES AND CITY LIFE

1. City life is diversified

   a. How do the specialized tasks of city living not only increase mutual dependence but make cities possible?

      (1) What happens if one group of specialized workers doesn't do its job (e.g. a strike of garbage collectors), or they can't do it (e.g. a power failure cuts electrical service)? How does this affect other parts of the city?

      (2) Can an event far away influence the city? What happens if there is a shortage of sugar? of gasoline? Or truck drivers go on strike?

      - These should not be viewed as disasters -- but rather examples of how far-reaching and complicated our depending on each other.

      - Is there any event in your community that might

create a problem for others far away? (Much will depend on what your community, or the nearest city, produces.)

(3) Use the above two activities to develop this generalization: *Mutual dependence, or being connected with others, means that what happens in one part affects the other parts.*

b. Are cities made up of people from many different places?

(1) Where do the people come from who live in American cities?

This is a good place to consider origins -- where do the children's families come from. You can trace origins to other parts of the country and go back far enough to stress foreign origins.

(2) Cities, then, are mixtures -- what do different groups add to city life?

(e.g. variety in music, food, religion, customs, etc.)

(3) How does the mixing of peoples connect us with other parts of the world?

(e.g. relatives in foreign countries, learning about different ways of living)

c. Why does living in large city groups require many rules (or laws)? What would city life be like without rules?

Recall the need for rules in the family -- so that each person knows what job he's responsible for.

2. Cities around the world are connected with each other.

a. What can be learned from the location of cities?

Why are so many cities on water routes? What does this suggest about how cities depend on other parts of the world?

b. Why do people live in cities? Why are cities all over the world growing?

(relate to industry, jobs, the desire to have the things modern machines produce)

c. Do cities around the world have problems like American cities (congestion, pollution, slums, etc.)?

d. If more and more of the world's people are moving to cities, does this mean that mutual dependence is increasing or decreasing?

3. Some conclusions

a. Cities depend on specialized tasks -- more and more people depending on each other.

b. Larger numbers and more mutual dependence creates the need for more rules.

c. Cities all over the world are growing; cities depend on other parts of the world. They are one way in which we are connected with other parts of the world.

PEOPLE AND THE ENVIRONMENT

1. Each environment is a little different.

Study the varieties in land forms, soil, climate, etc. -- perhaps in science periods.

2. The interaction between people and environment varies from culture to culture (or human group to human group).

a. How do humans depend on the natural environment?

The Spaceship Earth imagery can be used with simple groups to highlight the interaction between humans and nature. If early humans or primitive peoples are studied, you might raise these questions:

(1) What sort of life-support systems does a particular tribe depend on? (water, air, land, food supplies)

(2) What does the tribe have to do to avoid overuse or misuse of these life-support systems? (e.g. store water or move to find fresh water; store foods;

not overuse supplies of plant and animal food)

(3) This exercise can be turned around into a hypothesis-testing activity -- How is a primitive tribe like the crew of a spaceship?

b. Do all people use the same environment the same way?

Use text materials to draw out contrasts. Use as many pictures as possible, so that the children can pick out details of how different groups make use of, say, a desert climate.

c. What does the way people use their environment tell about how the people meet their needs?

d. How do cultures (or the way people do things) change?

Here you can get at the concept of culture.

e. What can be learned by studying your local environment?

- How was it used in the past (before white settlers)?

- How was it used by early settlers?

- How is it used today? Can children make guesses about why the present is so different from the past?

3. Animals and the natural environment depend on each other.

a. How do animals interact with the environment (or depend on it)? Can they change that environment in any way?

(Only in minor ways, such as beavers building dams.)

b. How does the natural environment depend on living things?

(1) For example, suppose all animals ate just grass, or leaves or fish -- what would happen to the environment?

(2) How does the life cycle of living things help maintain the balance of nature?

(3) What happens when the balance is upset in a particular environment? (a storm, a pond drying up, a flood, etc.)

4. Humans use tools to change the environment.

   a. How did simple tools help early humans or primitive peoples to change the environment?

      (1) Why was learning to farm so important?

      (Control over natural environment enabled humans to settle in one place and develop more complex ways of life.)

   b. How does the life of hunters compare to the life of farmers?

      (1) Who has more different tasks and different tools?

      (2) There is a mutual dependence in both, but which has more kinds of interdependence?

      (3) Which group needs more rules? Why?

   c. How do modern societies use tools to change the environment?

      If modern technology is developed in text materials, the children should see a wide variety of answers.

      Make use of the local community to make lists of activities that change the environment. (farming, road-building, buildings, factories, lumbering, etc.)

   d. What have been the results of humans changing the natural environment?

      Positive and negative effects should be considered.

      (1) How have peoples' lives been improved by the use of tools?

      (More things to use and do; greater comfort)

      (2) How have humans been careless in their use of the environment?

      Lead from here into study of different kinds of pollution, extend it as much as possible to global terms:

- How does misuse of the environment in one part of the world affect other parts? (Spread of air and water pollution)

- Do some human groups create more pollution than others? (Those with more modern technology or machinery.)

From this study the children should see that (a) interdependence is involved in producing the things we want and need; (b) interdependence is also involved when we damage the environment.

Value questions connected with this topic should not be ignored or dismissed. Let the children express their feelings about the responsibility of the United States (and other industrialized nations) to do more to protect the environment. Ask them how such activities as keeping parks clean, using mass transportation, or conserving resources can help.

5. Increased use of tools and specialization creates more people depending on each other.

   a. What kinds of jobs do your pupils' parents have? How are these specialized tasks that others depend on?

   b. Why does specialization create greater interdependence?

6. Some conclusions

   a. The way humans interact with the natural environment varies with different human groups or cultures; that is, people find different ways to meet their needs.

   b. Using tools allows people to change the environment and use it in different ways.

      (1) This improves people's lives.

      (2) It increases interdependence.

      (3) It creates greater responsibility not to destroy the environment.

SUGGESTIONS FOR CURRICULUM DEVELOPMENT

INTERDEPENDENCE

UPPER ELEMENTARY GRADES (4-6)

OBJECTIVES

Students should

1. understand the meaning of *systems* and be able to use this concept as a tool for analyzing interdependence.

2. be able to apply knowledge of technology in understanding the nature of interdependence at all levels, from the individual to global society.

3. know that societies are tied into global economic and technological networks to varying degrees.

4. be able to begin analyzing how increased interdependence changes the way people live.

5. be able to explore ways in which the local community is involved in global systems.

6. understand ways in which American history illustrates the development of worldwide interdependence.

7. be able to use cross-cultural comparisons in analyzing varying kinds of interdependence.

BACKGROUND DISCUSSION

Some of the more recent texts at these grade levels have done an excellent job of presenting information about other cultures in ways that are both more readable and less ethnocentric than previous works. Similarly, American history texts have improved, providing a broader and more honest perspective on the American experience. In addition, some books have provided good material on the idea of systems and the concept of interdependence.

Nevertheless, there remains room for considerable improvement. The major shortcoming we are here concerned with is the failure to use these materials to develop "world-mindedness."

The ideas and topics outlined below can help add that global dimension to the standard course work. Generally, these topics can be raised during appropriate lessons without the need for outside materials. (In fact, we have built on standard text topics and questions, and have merely carried them a step further.)

TOPIC AND IDEA OUTLINE

INTRODUCTORY -- The meaning of systems

The idea of systems is easy for children to grasp, and will help them to understand and use such terms as *mutual dependence, interdependence* and *interconnection*.

This knowledge of systemness is itself a useful tool; children can use it to organize their thinking and learning about a wide variety of topics. While the concept is not usually presented in social studies texts, a simple introductory lesson can be developed as follows.

1. Anything made up of *interconnected* parts is a system.

   (e.g. camera, flashlight, automobile)

2. For the system to work all parts have to work together. That is why we say the parts are interconnected, or that they depend on each other.

   (Introduce the terms mutual dependence and interdependence; see if the children can figure out meanings.)

3. What happens if one part breaks or fails to work? What happens in one part of a system is felt by all other parts.

4. Have students name and explain other examples of systems. Try to stick to material objects at first.

   a. Then have them think of systems made up of people.

   (e.g. team, orchestra, classroom, etc.)

b. *Some systems depend on other systems.* For example, what other systems would an automobile depend on?

(e.g. highway systems, service station systems, traffic systems, etc.)

c. *Some systems are made up of subsystems.* What are examples in the automobile?

(e.g. electrical parts are themselves a system)

d. Have students explain why each of the following is a system: family; body; school; your neighborhood.

Do each of these depend on other systems? (e.g. what does your body need?)

Are they made up of subsystems? (body: circulatory system, digestive system, etc.)

TECHNOLOGY

1. *Division of labor* and *specialization* are key ideas in beginning to understand interdependence in the modern world.

How do division of labor and specialization in a modern society differ from those in a primitive tribe, or early humans, or ways of working before power machinery?

2. The invention of machinery creates new kinds of interdependence (or systems).

a. What changes are caused by some inventions?

Students, individually or in teams, can trace the ripple effect of various inventions. For example, what new systems were required by the invention of the telephone?

(e.g. wiring, mining for metals, insulation, telephone poles, repair services, etc.)

b. Where do the raw materials for manufactured products come from?

List some raw materials on the board. Where should the class look to find out where these things come from?

Name some of the countries we depend on for raw materials.

Invite a representative of a manufacturing firm to tell the class about the company's dealings with other nations.

c. How do some inventions bring us closer to other parts of the world?

See if children can tell how the following have changed contact among peoples.

television telegraph

jet airplanes telephone

Ask some specific questions:

(1) Who would want to take an airplane to Tokyo or Nairobi?

(e.g. tourists, businessmen, government officials, etc.)

(2) Why did people want to lay telegraph and telephone wires across the floor of the Atlantic ocean?

(3) What have you learned from television about other parts of the world?

These activities should give the students dramatic evidence of how *technology increases interdependence and extends it to other parts of the world.*

3. These new kinds of interdependence change the way people live.

On the basis of their study, see what the students can do to support this statement.

At this point, students will probably notice most the increase of material goods. Help them to see that technology also meant depending on more and more people and systems.

The statement is explored further under the heading *Economy*.

4. Modern technology alters people's relationship to their environment.

   a. How does technology increase the need for resources and lead to large-scale exploitation of sources of raw materials?

   b. How does technology provide greater control over the environment?

      Be sure the children understand that not all nations share equally in this advanced technology.

   c. What are some of the harmful effects of modern technology?

      Pollution, noise, waste, overuse of resources can be studied in terms of how parts of systems influence other parts.

      The disruption of natural systems should be viewed in terms of local community, region or nation, and the entire world.

      In other words, when dealing with a specific aspect of environmental concerns, raise questions about how systems involving the entire planet are affected.

5. *Technology has positive and negative effects.*

   Students should be able to list a variety of good or useful results as well as problems.

   While developing concern over the harm caused by environmental decay see if students can develop positive attitudes toward these questions:

   a. Should pollution be stopped by cutting down the use of technology?

   b. Should pollution be stopped by learning to use our technology more wisely?

   c. How is *everyone* involved in the answers to those two questions?

ECONOMY

1. Such concepts as the need for raw materials, buying and selling, goods and services can be used to consider the spreading out of interdependence to include other areas of the globe.

   a. How does your locality depend on other regions of (1) the state, (2) the nation, (3) the world?

      Use specific examples -- e.g. Hershey, Pa., is a natural example and often used. Find businesses within your own community which will reveal similar dependence on other areas. Field trips to factories or freight services would be useful.

      (e.g. what is made or moved, where do the parts come from, etc.)

   b. How do other areas depend on communities like yours?

   c. How are communities connected?

      Once basic terms of raw materials, buyer and seller, goods and services are introduced, apply these to how the local community is connected to other parts of the world. Transportation and communications systems should be included.

      (1) What are the advantages of extending interdependence over wide areas of the globe?

          (e.g. more raw materials, wider range of products)

      (2) What sort of breakdowns might occur in these interlocking systems? What would happen if there was

          - a drought in Africa

          - a strike among dock workers or truck drivers

          - a revolution in a country on which we depend for resources?

          (You might find a headline in the daily news that would provide an actual example.)

2. There has been an historical expansion of economic interdependence.

   a. Did economic interdependence operate in either (1) the American colonies, or (2) primitive societies?

      Ask for examples (e.g. the colonies depended on each other and on England).

      - How were goods produced?

      - Where did raw materials come from?

      - How was food acquired?

   b. Are simple home industries examples of systems?

   c. How did modern technology, and the factory system lead to much greater complexity?

      (1) Have the children try to describe (or draw from photographs) some of the systems in a factory -- or the factory itself as a system.

      (2) Choose two or three manufacturing processes involving food (e.g. canned tuna; hot chocolate; frozen vegetables). With or without using encyclopedias see if they can figure out some of the systems involved. They will need help with some -- where does the packaging come from? How are natural systems involved? How do the goods get to the family table?

      (If the students work in committees they could create collages using magazine ads to indicate the variety of systems involved in a single product.)

3. Modern economic systems change social relationships.

   a. How is a modern supermarket a more efficient system than a neighborhood grocery store?

   b. What is gained and what is lost by relying on larger and larger systems?

      - Goods are cheaper and more convenient.

- Some might suggest that there are more possibilities for a breakdown in one part of the system.

- Show pictures of the old general store and a huge supermarket -- see if the pupils can figure out that the old close personal relationships are gone. This is a key element of modern society -- explore what it means to people's lives if you feel the class is ready.

4. Conclusions

   a. Through this systems approach, students should see that a *modern economy is made up of an infinite variety of systems, and systems interlocking with other systems.*

   b. They should also grasp the idea that *some of our economic subsystems include other parts of the world.*

   c. *Large webs of economic interdependence have advantages and drawbacks.*

   (Economic systems are also considered in later sections of the guide -- *Comparing Cultures* and *American History.*)

COMPARING CULTURES OR WORLD REGIONS

1. Not even the peoples of primitive cultures are completely independent.

   a. What are some of the ways in which members of these groups depend on each other?

   b. What sort of interdependence exists between the people and their environment?

   c. Do they have any contact with outside groups; does contact produce interdependence?

2. *Increased interdependence alters the way people live.*

   a. What are the implications of the contact that just about all primitive groups now have with the outside world?

For example -- a Kalahari bushman obtains a steel knife; an Australian aborigine works for a rancher, the Cheyenne obtain the horse -- or guns; the Tasaday are given bolo knives.

(1) How will this change their way of living? Will it alter the people's relationship with their environment?

(2) If possible, extend this further -- e.g. how might family life or belief systems or ideas of wealth be changed?

b. Is there evidence (or can the children make guesses) about the desire of primitive groups to maintain or increase contact with other more advanced groups?

3. More advanced cultures vary in the degree of interdependence with the rest of the world.

a. Why are some cultures (or parts of cultures) more technologically advanced than others?

In comparing different cultures, the class is likely to encounter some with more advanced technology than others. Students should be able to state which cultures they have studied are more interdepedent with other parts of the world.

b. What might cause the variations within cultures?

For instance: In Brazil, which parts of the country have close ties with other parts of the world? Which parts have only a little contact with worldwide systems?

(e.g. villages, with some outside products like motor vehicles, transistor radios, cokes, etc.)

Are there any groups in the society which have almost no contact with the outside world?

c. How does the society being studied depend on the United States? Do Americans depend on that country for anything?

If this is not touched on in the text, it would be a good research assignment.

d. Ideas on other approaches:

(1) Using pictures of urban centers in different cultures, what evidence can be found that shows each city is tied to other parts of the world?

(e.g. vehicles, signs, buildings, perhaps foreign businesses, etc.)

You can also use pictures of villages with almost no signs of products from beyond village. Compare these with villages in Appalachia or the Ozarks to show that there are parts of the U.S. that have little contact with global systems.

(2) Have individual students read stories about (a) the life of rural children in a particular society and (b) city life in the same society. Then have students compare what they have learned, especially evidence about contact with other parts of the country or world.

(3) Either of the above activities can be used for hypothesis testing:

- *In all societies, urban areas are more closely tied to global systems than rural areas.* Or:

- *In the modern world, even rural areas have some connection with global systems.*

(4) Airline and shipping maps (from transportation companies or travel bureaus) will show how some societies -- or parts of them -- are connected with other parts of the world.

4. Some conclusions.

The activities in this section should lead the class to understand that:

a. All human groups are interdependent.

b. Interdependence with other groups, or societies, will often change the way people live.

c. Some societies are more closely tied into global systems than others.

d. As a society, or part of it, becomes more modernized, interdependence with other parts of the world increases.

AMERICAN HISTORY OR AMERICAN SOCIETY

1. The colonial period marked an ear of expanding interdependence and change.

   a. How were European expansion and development of colonial empires first steps in extending interdependence from small regions to larger areas that soon covered all of the planet?

      (1) How do dependence and interdependence shed light on the contrasts between Latin American colonies and those of North America?

      Latin American colonies tended to be dependent on European rulers. But still there was some sign of interdependence. E.g. what food items did Europeans learn of from Latin America? What things did peoples of Latin America learn from Europeans?

      (2) What were the nature of relationships between North American colonies?

      - How did the people within each settlement depend on each other?

      - In what ways were the colonies interdependent?

      - What kinds of interdependence existed between colonies and England? (defense as well as trade)

   b. What happens when a system does not seem to work right?

      (1) By the 1750's, the colonists were grumbling about the colonial system. What did they think was wrong? Were they really suffering under British rule?

      (2) What did the King and Parliament think? How did they try to change the system?

      (3) Can the Revolution be seen as an attempt to change a system that one group didn't think was fair?

2. The government of the new nation established its independence from England and clarified the interdependent relationship of the states.

   a. Colonies were *independent* of England. Were they also independent of each other?

   b. Why was the government called the Articles of Confederation unworkable?

      (It didn't reflect the interdependence of the colonies -- they needed each other's products and a common means of defense.)

   c. How did the Constitution show interdependence?

      (1) Division of power between states and national government created a system with better balance.

      (2) The interdependence of the states -- their need for each other -- is reflected in the powers of the national government. This helps children understand the importance of the idea of *Union*.

      (3) The Bill of Rights adjusted the system to create a balance between order and individual freedom.

      (4) A written constitution (the first in history), and the power to amend it, meant that if something went wrong with this system of government, or one part didn't work well, the people could change it by peaceful means.

3. The nation grows and matures.

   The students' knowledge of interdependence and systems can help them better organize the major developments of the 19th century. Usually these developments (westward movement, industrialization, etc.) are covered in separate chapters or units, so the students don't see how they are linked together. Our concept, then, becomes a useful lens for historical analysis.

   a. How are developments in transportation and the westward movement interdependent?

      (1) The westward movement spurred the development of transportation -- canals, steamboats, railroads.

(2) How did the East and new West come to depend on each other?

b. How did this mutual dependence, in turn, help cities grow?

Western farmers provided food for growing Eastern cities, connected by the expanding transportation systems.

c. How were cities, in turn, important for the development of industry?

d. In addition to seeing how these developments depended on each other, help the children discover (1) how interdependence was increasing within each system; (2) how changes in one system led to changes in others. Some examples:

- As cities grew, what new needs did city people have? The text should supply plenty of examples -- water supplies, sanitation, fire protection, etc. These in turn led to new specialized tasks, and city governments became more important.

In these emerging cities of the 19th century, the class should be able to pick out many of the urban patterns we live with today.

- Where did the new city dwellers come from?

Immigration: how did this involve the U.S. with other parts of the world?

Internal migrations: how could people leave farms to move to cities?

4. Some conclusions

a. If a system involving people doesn't work right, some groups will try to change the system.

b. A federal system of government illustrates interdependence.

c. The major trends creating modern American society depended on each other.

MODERN SOCIETY

1. American society is made up of many systems sharing common concerns.

   The following topics and questions can serve to pull together some of the children's previous learning and also lead into considering the United States in relation to global concerns.

   a. What are some of the systems in your neighborhood, town or city, state, nation?

      The class can be divided into committees for this; encourage them to think of, or find, systems that have not been mentioned before.

   b. Are there ways in which you and your family depend on these systems; do the systems depend on you?

   c. What happens when one system or part does not function properly? How is the problem solved or repaired?

   d. What are some problems that our entire society is trying to deal with? How are different groups working together to deal with these matters?

      Depending on course work, students might look into efforts to reduce poverty, improve race relations, build a more stable economy, a healthier environment, etc.

2. World society is made up of many diverse groups sharing common concerns.

   a. What are some of the groups in other parts of the world that people in your community might depend on?

      Again, answers will depend on previous work.

      (1) What are some of the systems involved?

         (e.g. transportation, communications, people, national systems, etc.)

      (2) What happens if something goes wrong with one of the systems?

- Could it influence your life or people in your community?

- Can an event or change in this country influence other parts of the world? Give an example.

(For instance, a strike of truck drivers in the U.S. would affect people in this country as well as people in other countries who sell to or buy from the U.S.)

b. What are some of the problems world society is trying to deal with?

Concentrate on concerns with which the class would be most familiar -- environment, war, poverty, hunger, population, etc.

(1) How are people of the world trying to correct the system? How does this work illustrate interdependence?

Have volunteers or small groups find out about U.N. agencies, government cooperation, world conferences, volunteer agencies. After completing their research, groups can report to the class. Encourage students to bring in posters, magazine pictures, charts, etc. Many agencies (like UNICEF) are glad to help. Your local community is likely to have a United Nations Association or Council on World Affairs that can supply information suitable for this age level.

(2) What other actions can students think of that might help?

(3) Why is it important for the people of the world to work together in such matters?

3. As interdependence increases, it becomes more important for people to work together.

As a concluding activity, ask the students how they would prove this statement.

ENVIRONMENTAL STUDIES

Courses which center around environmental studies need no assistance in developing the idea of systems or interdependence. However, when possible, it is important for students to consider the global nature of some concerns.

1. Human changes of the environment can have a broad impact.

   If not covered in the text, be sure the class considers how modern changes in the environment can have a far reaching impact throughout the world. The air system or water are obvious places to develop this understanding.

   You might have the class consider a proposed change -- Should the SST (Supersonic Transport) be developed? Should the resources in the oceans' floor be mined? Consideration of actual decisions, with pro and con arguments, will emphasize the widespread impact of decisions we are making.

2. Regions not yet exploited, but which could be useful to humans, pose possibilities for thoughtful planning.

   The class could consider such regions as the wilderness of Northern Canada, National Forests of the U.S. and the rain forests of Brazil or Central Africa.

   a. How would use of these resources help solve some of the problems faced by the human family?

   b. What are the potential harmful effects of development?

   c. What should be done? Who should decide? What would the class do?